

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 July 2003 (24.07.2003)

PCT

(10) International Publication Number
WO 2003/059778 A3

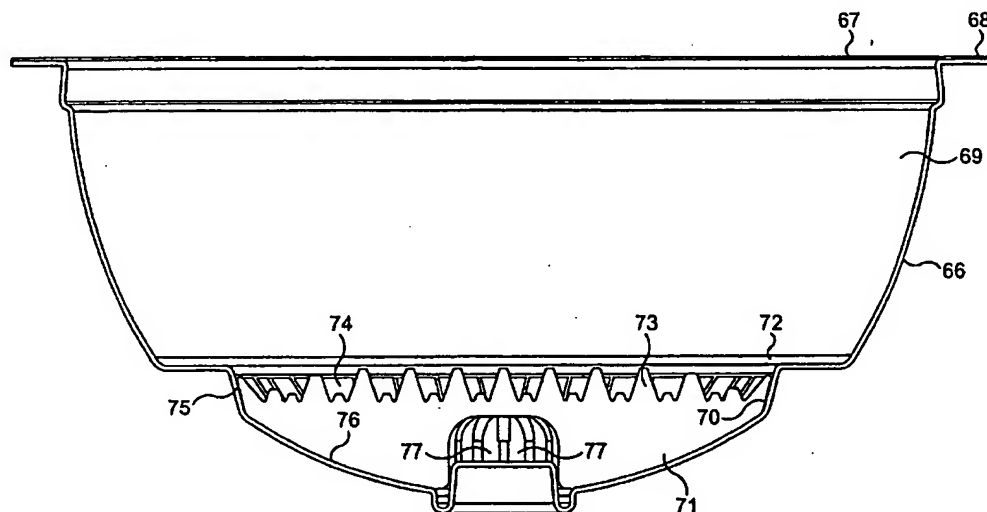
- (51) International Patent Classification⁷: **B65D 81/00**, 85/804 (74) Agent: THOMAS, Alain; Avenue Mestlé 55, CH-1800 Vevey (CH).
- (21) International Application Number: PCT/EP2003/000384 (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 13 January 2003 (13.01.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 02000943.7 16 January 2002 (16.01.2002) EP (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
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Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,

[Continued on next page]

(54) Title: CLOSED CAPSULE WITH OPENING MEAN



(57) Abstract: The present invention relates to a closed capsule designed to be extracted under pressure in an extraction device, containing a substance (69) for the preparation of a beverage, comprising a closed system (66, 67) containing the said substance (69) and a means (73) inside the said system allowing the said capsule to be opened at the time of its use and allowing the said beverage to flow out without contact with its extraction system.



MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent

(GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Published:

- with international search report

(88) Date of publication of the international search report:

8 January 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Internat. Application No.

PCT/EP 03/00384

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B65D81/00 B65D85/804

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B65D A47J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|----------------------------------|
| X, P | WO 02 081337 A (MAJER DOGLIONI LUCA ;TUTTOESPRESSO S P A (IT)) 17 October 2002 (2002-10-17) page 7, line 15 -page 10, line 3; figures 4-10 | 1-3, 5, 6, 8, 21-24, 26-29 |
| X | GB 1 256 247 A (KANTOR INTERNATIONAL) 8 December 1971 (1971-12-08) cited in the application page 1, line 53 -page 2, line 48; figures 1-7 | 1, 21-24, 26, 27 |
| | -/- | |

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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- *Z* document member of the same patent family

Date of the actual completion of the international search

22 May 2003

Date of mailing of the international search report

25/07/2003

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

Internat application No

PCT/EP 03/00384

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-------------------------------------|
| X | US 5 259 295 A (TIMM EBERHARD) 9 November 1993 (1993-11-09) column 3, line 28 - line 50 column 4, line 9 - line 32; figures 1-3,7,9,10 ---- | 1-6, 8-13,15, 21-24, 26-29 |
| X | DE 23 27 264 A (BEDNARTZ HUGO) 2 January 1975 (1975-01-02) page 11, line 3 -page 12, line 7; figures 6-7A ---- | 1,26 |
| X | US 4 077 551 A (MANARESI ADRIANA) 7 March 1978 (1978-03-07) column 2, line 46 -column 3, line 36; figures 4,5 ---- | 1-3, 26-29 |
| X | FR 2 620 921 A (FAFOURNOUX BERNARD) 31 March 1989 (1989-03-31) page 4, line 11 -page 5, line 23; figures 3,4 ---- | 1 |
| A | | 4 |
| X | EP 0 451 980 A (GEN FOODS KRAFT LTD) 16 October 1991 (1991-10-16) column 9, line 13 - line 52; figures 5A,5B ----- | 1 |

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP 03/00384

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

INTERNATIONAL SEARCH REPORT

on patent family members

Intern

Application No

PCT/EP 03/00384

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|---|---------------------|--|--|
| WO 02081337 | A | 17-10-2002 | IT MI20010741 A1 WO 02081337 A1 | 07-10-2002 17-10-2002 |
| GB 1256247 | A | 08-12-1971 | AT 283183 B BE 740896 A CH 515155 A DE 1954209 A1 ES 153070 Y FR 2022482 A5 IE 33402 B1 LU 57420 A1 MT 598 A NL 6916281 A OA 3156 A | 27-07-1970 01-04-1970 15-11-1971 27-05-1970 16-10-1970 31-07-1970 12-06-1974 04-03-1969 11-09-1971 06-05-1970 15-12-1970 |
| US 5259295 | A | 09-11-1993 | DE 9013838 U1 AT 119368 T DE 59104862 D1 DK 479111 T3 EP 0479111 A1 ES 2071182 T3 HK 157995 A JP 4364818 A SU 1837834 A3 US 5287796 A | 06-02-1992 15-03-1995 13-04-1995 24-07-1995 08-04-1992 16-06-1995 13-10-1995 17-12-1992 30-08-1993 22-02-1994 |
| DE 2327264 | A | 02-01-1975 | DE 2327264 A1 | 02-01-1975 |
| US 4077551 | A | 07-03-1978 | NONE | |
| FR 2620921 | A | 31-03-1989 | FR 2620921 A1 | 31-03-1989 |
| EP 0451980 | A | 16-10-1991 | AT 111856 T CA 2039243 A1 DE 69104106 D1 DE 69104106 T2 DK 451980 T3 EP 0451980 A2 ES 2060297 T3 HK 146494 A JP 2690207 B2 JP 5097166 A KR 170775 B1 | 15-10-1994 01-10-1991 27-10-1994 19-01-1995 20-02-1995 16-10-1991 16-11-1994 30-12-1994 10-12-1997 20-04-1993 30-03-1999 |